

CP212/CP218 Condenser Cardioid Gooseneck Microphones

- Small size—perfect and unobtrusive for podium applications
- Frequency and cardioid polar response uniform across the range, for natural sound and high resistance to feedback
- All-steel construction and hum-bucking output transformer substantially reduce noise from stray magnetic fields and RFI
- Low, 95-ohm output impedance allows very long cable runs
- Optional CPSM podium shock mount provides more than 15 dB of mechanical shock isolation at 200 Hz

SPECIFICATIONS

Generating Element:

Condenser, back electret

Frequency Response (see Figure 1):

70-20,000 Hz (5 in. or greater)

50-20,000 Hz (3-in. distance)

Polar Pattern (see Figure 3):

Cardioid

Sensitivity,

Open Circuit Voltage:

4.5 mV/pascal at 1,000 Hz

Power Level:

-43 dB at 1,000 Hz

(0 dB = 1 mW/pascal)

Dynamic Range:

117 dB

Equivalent Noise:

23 dB SPL "A" weighted

(0 dB = 20 micropascals)

Impedance:

95 ohms at 1,000 Hz

(works with all lo-Z mic inputs)

Power Requirements:

9-52 V dc phantom supply

Current Consumption:

2.5 mA

Switchable Low-Frequency Responses

(see Figure 1):

Flat or roll-off

($f_0 = 130$ Hz, 12-dB-per-octave slope)

Color:

Non-reflecting black

Environmental Conditions,

Relative Humidity 0-50%:

-29° to 74° C (-20° to 165° F)

Relative Humidity 0-95%:

-29° to 57° C (-20° to 135° F)

Net Weight,

CP212: 182 grams (6.4 oz)

CP218: 244 grams (8.6 oz)

Shipping Weight,

CP212: 400 grams (14.1 oz)

CP218: 528 grams (18.6 oz)

Mounting:

Male XLR-type 3-pin connector

Dimensions (see Figure 4),

Gooseneck and Head Length,

CP212: 294.6 mm (11.6 in.)

CP218: 457.2 mm (18 in.)

Head Diameter:

10.5 mm (0.415 in.)

Gooseneck Diameter:

6.4 mm (0.25 in.)

Electronics Module Diameter:

20 mm (0.79 in.)

Connector Diameter:

19 mm (0.75 in.)

Accessories Furnished:

Windscreen;

Double-sided tape

Optional Accessories:

FMK flange mount kit;

CPSM shock-mount kit

DESCRIPTION

The CP212 and CP218 podium microphones are phantom-powered "back-electret" miniature condenser gooseneck microphones. The back-electret feature provides greater sensitivity, wider frequency response, and superior immunity from handling noise than a diaphragm-electret microphone. The CP212 and CP218 are mechanically designed for quick, easy mounting to a lectern, pulpit, or podium equipped with a bulkhead female XLR-type 3-pin receptacle. For permanent installation, optional fixed (FMK flange-mount kit) and shock-mounted (CPSM shock-mount kit) accessories are also available. The CP212 and the CP218 were acoustically designed for high-quality sound reinforcement and broadcast applications. The frequency response is tailored for wide-range

sound reproduction with very natural sound pick-up for either distant or close-up use. The small-diameter gooseneck has two support joints and a rigid center tube. The rigid tube prevents unsightly twisting of the gooseneck but permits the user to exactly position the microphone. The electronics housing's 3/4-inch diameter base is terminated with an XLR-type 3-pin connector which allows the microphone to be plugged directly into an existing panel-mount XLR receptacle. The housing is machined steel for ruggedness and superior EMI/RFI attenuation. A low-frequency roll-off switch has been provided to configure the low-frequency response, reducing proximity effect, background noise, and mechanical vibration. The switchable low-frequency response is not load sensitive and provides a constant corner frequency regardless of mixer input impedance. The electronics' output circuit utilizes a specially produced hum-bucking transformer to further attenuate external magnetic pick-up from lighting or electrical power sources and provide a balanced, low output impedance, which is typically less than 95 ohms. This permits very long cable runs without the usual degrading of microphone performance. The CP212/CP218 are designed to be phantom-powered with a wide voltage range, 9-52 V dc (DIN Standard 45 596).

APPLICATIONS

The model CP212/CP218 gooseneck microphones are designed for sound reinforcement applications requiring high quality, wide response and a unidirectional polar pattern in a slender, adjustable gooseneck microphone. The model CP212/CP218 can be employed on lecterns, podiums, on mixing consoles as a talk-back microphone, or other applications which require a quick plug-in gooseneck microphone.

FIGURE 1 — Frequency Response

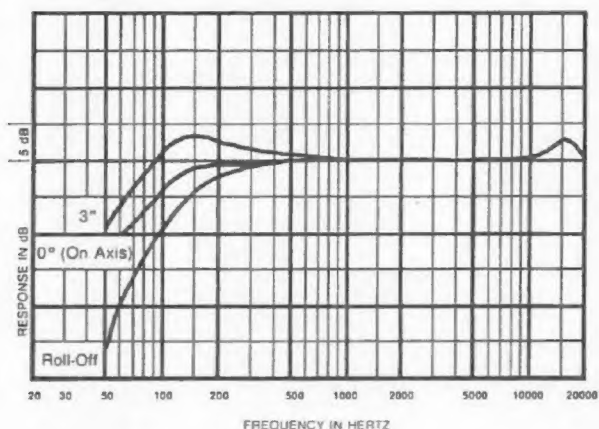


FIGURE 2 — Shock and Vibration Isolation of the CPSM Shock Mount
(Microphone output referenced to 1 g acceleration at 200 Hz)

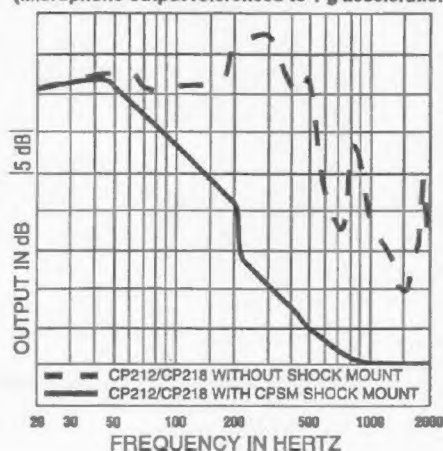


FIGURE 3 — Polar Response

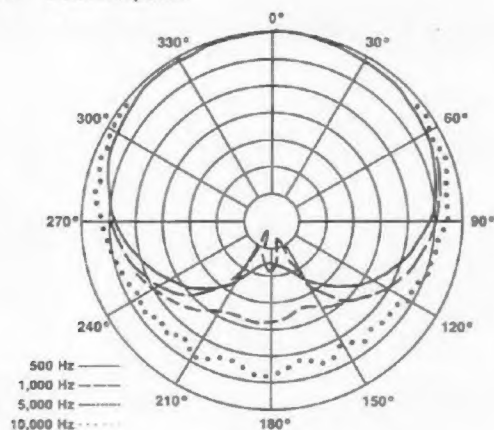


FIGURE 4 — Dimensions

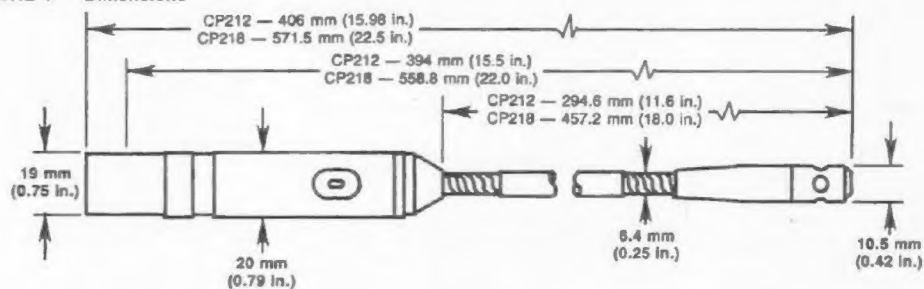
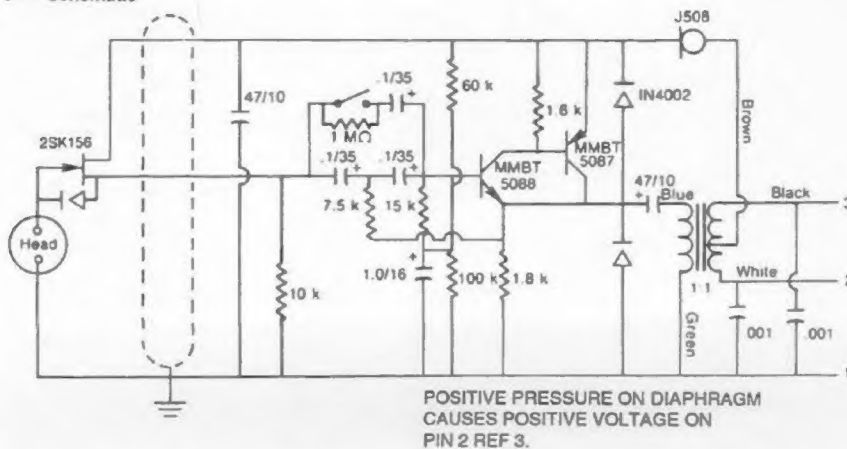


FIGURE 5 — Schematic



Applications of close or normal miking of speech at podiums, lecterns, or pulpits normally require a windscreen to control breath noise and P-popping or, in some cases, wind noise from circulating air. A small foam windscreen is included with the CP212 and CP218 podium microphones. This windscreen is made of two stages of foam (a dense exterior surrounding a sparser core) which is easily slipped over the transducer. This two-stage filtering provides greater isolation from P-pop noise in a smaller package.

In some locations, there is a desire to permanently attach the foam windscreen to the microphone to prevent loss. Included with the microphone are two strips of double-sided tape (the second strip is a spare). To permanently attach the foam windscreen, first crack and peel off the protective back layer of one strip of tape. Apply the tape to the transducer by wrapping it around the transducer and gooseneck-adaptor junction area, being careful to not cover any of the four screened ports. Next remove the protective front layer. Finally, pull the windscreen down over the tape, stopping when the end of the foam is approximately $\frac{3}{4}$ to $\frac{1}{2}$ inch from the flexible gooseneck. **Caution: the windscreen foam is delicate and therefore easily ripped by applying too much force.**

MOUNTING ACCESSORIES **CPSM SHOCK MOUNT KIT**

The Electro-Voice CPSM shock mount effectively isolates the mounted CP212 and CP218 podium microphones from shock-induced vibrations that would be experienced on podiums, pulpits, table and desk tops, plus provides theft-resistant security. Compared to hard mounting, the CPSM shock mount provides 15 dB of shock isolation at 200 Hz (see Figure 2).

FMK FLANGE MOUNT KIT

For installations which do not require a shock mount, the FMK flange mount is designed for quick installation on podiums, pulpits, table and desk tops and provides theft-resistant security.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS **CP212**

The microphone shall be a single-D cardioid back electret condenser type with frequency response of 70 to 20,000 Hz.

The microphone shall have a 150-ohm balanced output, with an output level of

-43.0 dB (0 dB = 1 mW/pascal). The microphone shall have a back electret condenser generating element whose output shall not be appreciably affected by temperature extremes from -17.8° C (0° F) to 54.4° C (130° F) and/or by humidity extremes. A switchable high-pass filter ($f_c = 130$ Hz) shall be provided.

Dimensions shall be 20 mm (0.79 in.) diameter and 406 mm (15.98 in.) long. The microphone shall include a 294.6 mm (11.6 in.) gooseneck with professional XLR-type 3-pin style terminating connector and an external windscreen. The microphone shall be of metal construction.

The Electro-Voice model CP212 is specified.

CP218

The microphone shall be a single-D cardioid back electret condenser type with frequency response of 70 to 20,000 Hz.

The microphone shall have a 150-ohm balanced output, with an output level of -43.0 dB (0 dB = 1 mW/pascal). The microphone shall have a back electret condenser generating element whose output shall not be appreciably affected by temperature extremes from -17.8° C (0° F) to 54.4° C (130° F) and/or by humidity extremes. A switchable high-pass filter ($f_c = 130$ Hz) shall be provided.

Dimensions shall be 20 mm (0.79 in.) diameter and 571.5 mm (22.5 in.) long. The microphone shall include a 457.2 mm (18 in.) gooseneck with professional XLR-type 3-pin style terminating connector and an external windscreen. The microphone shall be of metal construction.

The Electro-Voice model CP218 is specified.

WARRANTY (Limited)

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction

resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831) and/or Electro-Voice West, at 8234 Doe Avenue, Visalia, CA 93291 (209/651-7777). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Electro-Voice N/D, PL, BK, and Professional Microphones are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited Warranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years from the date that the manufacture of the specific microphone has been discontinued. Any and all active electronics incorporated in these microphones are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. The Limited Warranty does not extend to cables, cable connectors, or switches. Additional details are included in the Uniform Limited Warranty statement.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107.

Specifications subject to change without notice.